Michigan Department
Of Transportation
5100B (12/14)

CHECKLIST TO DESIGNATE AREAS OF EVALUATION FOR REQUESTS FOR PROPOSAL (RFP)

	REQUISITION NUMBER	DUE DATE	TIME DUE
	1897	12/21/2015	noon est
MDOT PROJECT MANAGER Jim Petronski	JOB NUMBER (JN) 120434A	CONTROL SECTION (CS) 77024	

DESCRIPTION
Full CE for the and Systems Manager for the ITS Installation on I-69 from M-19 to St.. Clair County Line.

MDOT PROJECT MANAGER: Check all items to be included in RFP WHITE = REQUIRED ** = OPTIONAL Check the appropriate Tier in the box below			**CONSULTANT:** Provide only checked items below in proposal
☐ **TIER 1 ($50,000 - $150,000)**	☑ **TIER II ($150,000-$1,000,000)**	☐ **TIER III (>$1,000,000)**	
☐	☑	☐	Understanding of Service **
☐	☐	☐	*Innovations*
☐	☑	☐	Organizational Chart
☐	☑	☐	Qualifications of Team
Not required as part of Official RFP	Not required as part of Official RFP	☐	Quality Assurance/Quality Control **
☐	☑	☐	**Location:** The percentage of work performed in Michigan will be used for all selections unless the project is for on-site inspection or survey activities, then location should be scored using the distance from the consultant office to the on-site inspection or survey activity.
N/A	N/A	☐	Presentation **
N/A	N/A	☐	Technical Proposal (if Presentation is required)
3 pages (MDOT Forms not counted) Resumes will only be accepted for Best Value Selections	7 pages (MDOT Forms not counted)	14 pages (MDOT forms not counted)	Total maximum pages for RFP **not including key personnel resumes.** Resumes limited to 2 pages per key staff personnel.

PROPOSAL AND BID SHEET EMAIL ADDRESS – mdot-rfp-response@michigan.gov

GENERAL INFORMATION

Any questions relative to the scope of services must be submitted by e-mail to the MDOT Project Manager. Questions must be received by the Project Manager at least five (5) working days prior to the due date and time specified above. All questions and answers will be placed on the MDOT website as soon as possible after receipt of the questions, and at least three (3) days prior to the RFP due date deadline. The names of vendors submitting questions will not be disclosed.

MDOT is an equal opportunity employer and MDOT DBE firms are encouraged to apply. The participating DBE firm, as currently certified by MDOT's Office of Equal Opportunity, shall be listed in the Proposal.

MDOT FORMS REQUIRED AS PART OF PROPOSAL SUBMISSION

5100D – Request for Proposal Cover Sheet
5100J – Consultant Data and Signature Sheet (Required for all firms performing non-prequalified services on this project.)

(These forms are not included in the proposal maximum page count.)

REQUEST FOR PROPOSAL

The Michigan Department of Transportation (MDOT) is seeking professional services for the project contained in the attached scope of services.

If your firm is interested in providing services, please indicate your interest by submitting a Proposal, Proposal/Bid Sheet or Bid Sheet as indicated below. The documents must be submitted in accordance with the latest (Consultant/Vendor Selection Guidelines for Services Contracts."

RFP SPECIFIC INFORMATION

☑ ENGINEERING SERVICES ☐ BUREAU OF TRANSPORTATION PLANNING ☐ OTHER

THE SERVICE WAS POSTED ON THE ANTICIPATED QUARTERLY REQUESTS FOR PROPOSALS

☑ NO ☐ YES DATED_____ THROUGH _____

☑ **Prequalified Services** – See the attached Scope of Services for required Prequalification Classifications.

☐ **Non-Prequalified Services** – If selected, the vendor must make sure that current financial information, including labor rates, overhead computations, and financial statements, is on file with MDOT's Office of Commission Audits
This information must be on file for the prime vendor and all sub vendors so that the contract will not be delayed.
Form 5100J is required with proposal for all firms performing non-prequalified services on this project.

☑ **Qualification Based Selection** - Use Consultant/Vendor Selection Guidelines.

For all Qualifications Based Selections, the selection team will review the information submitted and will select the firm considered most qualified to perform the services based on the proposals. The selected firm will be asked to prepare a priced proposal. Negotiations will be conducted with the firm selected.

For a cost plus fixed fee contract, the selected vendor must have a cost accounting system to support a cost plus fixed fee contract. This type of system has a job-order cost accounting system for the recording and accumulation of costs incurred under its contracts. Each project is assigned a job number so that costs may be segregated and accumulated in the vendor's job-order accounting system.

☐ **Qualification Based Selection / Low Bid** – Use Consultant/Vendor Selection Guidelines. See Bid Sheet instructions for additional information.

For Qualification Review/Low Bid selections, the selection team will review the proposals submitted. The vendor that has met established qualification threshold and with the lowest bid will be selected.

☐ **Best Value** – Use Consultant/Vendor Selection Guidelines, See Bid Sheet Instructions below for additional information. The bid amount is a component of the total proposal score, not the determining factor of the selection.

☐ **Low Bid** (no qualifications review required – no proposal required.)

BID SHEET INSTRUCTIONS

Bid Sheet(s) are located at the end of the Scope of Services. Submit bid sheet(s) with the proposal, to the email address: mdot-rfp-response@michigan.gov. Failure to comply with this procedure may result in your bid being rejected from consideration.

PARTNERSHIP CHARTER AGREEMENT

MDOT and ACEC created a Partnership Charter Agreement which establishes guidelines to assist MDOT and Consultants in successful partnering. Both the Consultant and MDOT Project Manager are reminded to review the **ACEC-MDOT Partnership Charter Agreement** and are asked to follow all communications, issues resolution and other procedures and guidance's contained therein.

NOTIFICATION
MANDATORY ELECTRONIC SUBMITTAL

Proposals submitted for this project must be submitted electronically.

The following are changes to the Proposal Submittal Requirements:

- Eliminated the Following Requirements:
  - Safety Program
  - Communication Plan
  - Past Performance as *a separate section*
  - Separate section for DBE Statement of goals. Include information in Qualification of Team section

- Implemented the Following Changes:
  - All proposals require an Organization Chart
  - Resumes must be a maximum of two pages
  - Only Key (lead) staff resumes may be submitted
  - Tier III proposal reduced from 19 to 14 pages
  - Forms 5100D, 5100I, and 5100G combined – 5100D
  - Forms 5100B and 5100H combined – 5100B
  - RFP's will be posted on a weekly basis -- on Mondays

The following are Requirements for Electronic Submittals:

- Proposals must be prepared using the most current guidelines
- The proposal must be bookmarked to clearly identify the proposal sections (See Below)
- For any section not required per the RFP, the bookmark must be edited to include "N/A" after the bookmark title.
  Example: Understanding of Service – N/A
- Proposals must be assembled and saved as a single PDF file
- PDF file must be 5 megabytes or smaller
- PDF file must be submitted via e-mail to MDOT-RFP-Response@michigan.gov
- MDOT's requisition number and company name must be included in the subject line of the e-mail. The PDF shall be named using the following format:
  - Requisition#XXX_Company Name.PDF
- MDOT will not accept multiple submittals
- Proposals must be *received* by MDOT on or before the due date and time specified in each RFP

If the submittals do not comply with the requirements, they may be determined unresponsive.

The Consultant's will receive an e-mail reply/notification from MDOT when the proposal is received. Please retain a copy of this e-mail as proof that the proposal was received on time. **Consultants are responsible for ensuring the MDOT receives the proposal on time.**

****Contact Contract Services Division immediately at 517-373-4680 if you do not get an auto response****

Required Bookmarking Format:

I. Request for Proposal Cover Sheet Form 5100D
   A. Consultant Data and Signature Sheet, Form 5100J (if applicable)
II. Understanding of Service
   A. Innovations
III. Qualifications of Team
   A. Structure of Project Team
      1. Role of Firms
      2. Role of Key Personnel
   B. Organization Chart
   C. Location
IV. Quality Assurance / Quality Control Plan
V. Resumes of Key Staff
VI. Pricing Documents/Bid Sheet (if applicable)

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NOTIFICATION
E-VERIFY REQUIREMENTS

E-Verify is an Internet based system that allows an employer, using information reported on an employee's Form I-9, Employment Eligibility Verification, to determine the eligibility of that employee to work in the United States. There is no charge to employers to use E-Verify. The E-Verify system is operated by the Department of Homeland Security (DHS) in partnership with the Social Security Administration. E-Verify is available in Spanish.

The State of Michigan is requiring, under Public Act 200 of 2012, Section 381, that as a condition of each contract or subcontract for construction, maintenance, or engineering services that the pre-qualified contractor or subcontractor agree to use the E-Verify system to verify that all persons hired during the contract term by the contractor or subcontractor are legally present and authorized to work in the United States.

Information on registration for and use of the E-Verify program can be obtained via the Internet at the DHS Web site: http://www.dhs.gov/E-Verify.

The documentation supporting the usage of the E-Verify system must be maintained by each consultant and be made available to MDOT upon request.

It is the responsibility of the prime consultant to include the E-Verify requirement documented in this NOTIFICATION in all tiers of subcontracts.

9/13/12

Michigan Department of Transportation

SCOPE OF SERVICE
FOR
CONSTRUCTION SERVICES
Intelligent Transportation Systems Manager
Full Construction Engineering

CONTROL SECTION(S): 77024

JOB NUMBER(S): 120434A

PROJECT LOCATION: I-69 WB (County Line to M-19)

DESCRIPTION OF WORK:

The Consultant must provide, to the satisfaction of the Department, Construction Engineering Services as generally described herein: Project for construction work to be performed by the Construction Contractor until completion of work by the Construction Contractor and acceptance of the Project and Construction Engineering Services by the Department.

The Construction Engineering Services are as follows: **project administration; meeting coordination and attendance; inspection; quality assurance testing and reporting; measurement, computation, and documentation of quantities; reporting and record keeping; processing progress pay estimates; and finalizing all project documentation.**

The System Manager task involves the successful oversight of the Contractors deployment or integration of the following groups of ITS device subsystems: **Dynamic Message Signs (DMS), Surveillance Systems (CCTV) Cameras, Microwave Vehicle Detection Systems (MVDS), and all required communications devices and facilities necessary to link those ITS field devices to the MDOT ITS communications network. Below is a general listing, including but not limited to, those ITS device subsystems and cabinets that will be deployed or integrated during the Consultants oversight:**

- **ITS Cabinets;**
- **DMS;**
- **CCTV Cameras/Surveillance Systems;**
- **MVDS;**
- **Integration of fiber communications**
- **Integration of the operation of new equipment and communication at the BWB TOC and South Eastern Michigan TOC (SEMTOC)**

ANTICIPATED START DATE:
February 15, 2016

ANTICIPATED COMPLETION DATE:
December 31, 2017

PRIMARY PREQUALIFICATION CLASSIFICATION:
Construction Engineering: Roadway
Design –Traffic: ITS – Design & System Manager

SECONDARY PREQUALIFICATION CLASSIFICATION:
Construction Testing: Concrete

DBE PARTICIPATION: 5%

ESTIMATED CONSTRUCTION COST:
$3,080,000

MDOT PROJECT MANAGER:
Jim Petronski, P.E.
Macomb TSG
26170 21 Mile Rd.
Chesterfield Township, MI 48051
Phone:(586) 421-3957
Fax: (586) 598-4046
E-mail: Petronskij@michigan.gov

The Consultant must contact the Project Manager prior to beginning any work on this Project.

GENERAL INFORMATION:

The Consultant must furnish all services and labor necessary to conduct and complete the Construction Engineering Services and ITS Systems Manager described herein. The Consultant must also furnish all materials, equipment, supplies, and incidentals necessary to perform the Services (other than those designated in writing to be furnished by the Department), and check and/or test the materials, equipment, supplies, and incidentals as necessary in carrying out this work. The Services must be performed to the satisfaction of the Department consistent with applicable professional standards.

A. The Consultant's principal contact with the Department must be through the designated Project Manager.

B. The Services described herein are financed with public funds. The Consultant must comply with all applicable federal and state laws, rules, and regulations.

C. The Consultant agrees to demonstrate knowledge of, and performance in compliance with, the standard construction practices of the Department; the Project construction contract, proposal, and plans; the Standard Specifications for Construction and all applicable publications referenced within; the Michigan Construction Manual; the Materials Source Guide; the Materials Quality Assurance Procedures Manual; the Documentation Guide; the Density Testing and Inspection Manual; the Soil erosion and Sedimentation Control Manual; and all other references, guidelines, and procedures manuals necessary to carry out the work described herein in an appropriate and acceptable manner.

CONSULTANT RESPONSIBILITIES:

Task 1.0 Project Management

Description: The CONSULTANT under direction of the MDOT Project Manager and/or the Construction Engineer in the form of SYSTEM MANAGER will handle Project Management activities which consist of organizing and managing this project with other support services such as system documentation production, project coordination, scheduling, cost control, inventory control, and performance reporting as defined below.

- **Task 1.1 Quality Assurance/Quality Control (QA/QC) Plan**

The SYSTEM MANAGER is tasked with the development of a QA/QC Plan. The Plan will include Post Design Services (RFI's, Shop Drawings and Manufacturers Acceptance Test Reports), System Requirements, Configuration, Integration and Acceptance Testing, Field Integration Oversight and Final Acceptance. This Plan will be utilized by the SYSTEM MANAGER to assure the CONTRACTOR builds a fully functional and integrated system.

The SYSTEM MANAGER will provide quality assurance/quality control for all work products in accordance with the MDOT's and SYSTEM MANAGER's normal practices for such QA/QC, as relates to the oversight of procurement and installation of the ITS devices.

- **Task 1.2 Coordination**

This task covers coordination with the project CONTRACTOR, CONSTRUCTION ENGINEER, MDOT PROJECT MANAGER, and other work related to this effort. The SYSTEM MANAGER will also work with other consultants as deemed necessary by the MDOT PROJECT MANAGER. The SYSTEM MANAGER will attend I-69 Progress Review Meetings assigned by the CONSTRUCTION ENGINEER. A full written ITS monthly status report will be provided to the MDOT PROJECT MANAGER for review. The ITS status report will contain the meeting notes, current project status, current schedule, and on-going work effort for the next month. Following review, the monthly status report will be sent to a distribution list of recipients.

This task covers coordination and attendance of special topic meetings other than the

Monthly Project Review Meetings to keep the project on track.

- **Task 1.3 Scheduling**

The SYSTEM MANAGER will advise with the CONTRACTOR to prepare and submit an equipment schedule to ensure that devices and equipment are installed and integrated correctly. The SYSTEM MANAGER will advise the MDOT PROJECT MANAGER, for appropriate action, on issues that may affect the proper installation and/or integration of devices.

- **Task 1.4 Use of File Sharing Software**

The System Manager will utilize software for project documentation, tracking, and communication with on line project collaboration capabilities.

Task 1.0 (Project Management) Deliverables:

1. Project QA/QC Plan – 10 days after NTP;
2. Monthly Progress Review Meeting Minutes and Report – Electronic copy submitted to distribution list within five (5) working days following the last progress meeting of the month.
3. Other project meetings minutes or notes – Meeting minutes will be prepared and distributed to all attendees and the MDOT PROJECT MANAGER within five (5) working days following the meeting.
4. Miscellaneous correspondence and project management documentation;
5. Approval recommendation of CONTRACTOR's construction schedule

Task 2.0 Post Design Services and Manufacturer's Acceptance Testing

- **Task 2.1 Post Design Support**

MDOT, at its option, may seek technical support, evaluation support, device/technical specification evaluation, and technical and administrative issues audits that may be required from time to time during the procurement and integration of the ITS devices and the construction and implementation of the ITS devices. These services include any analytical service deemed necessary by MDOT and in support of the MDOT PROJECT MANAGER and his/her staff. As directed by MDOT, the SYSTEM MANAGER will perform those post design services necessary for the successful procurement of those ITS devices by MDOT. As directed by MDOT, the SYSTEM MANAGER will perform specific equipment test and evaluations of ITS devices.

Post Design Services:

- Vendor Equipment Procurement Request for Information (RFI) responses;
- CONTRACTOR Request for Information (RFI) responses;
- Technical issues white papers;
- If needed, plan modifications;
- Shop and submittal drawing reviews (two week review period); and
- Device specifications submittal reviews.

- **Task 2.2 Acquisition, Review and Verification of Manufacturers' Acceptance Testing**

  The equipment specifications require the equipment manufacturer to perform applicable acceptance tests on selected items procured by MDOT prior to shipment. MDOT requires the SYSTEM MANAGER to acquire Manufacturer testing certifications from the equipment Vendor of items. The SYSTEM MANAGER is to review and verify component and equipment level factory acceptance testing and issue to the MDOT PROJECT MANAGER a report of vendor's compliance with industry or Standards Development Organization (SDO) approved testing procedures. SYSTEM MANAGER will verify tests and results conformance to the standards and specifications set forth in the project plans and specifications.

  As required, DMS testing and proofing specifically for the Dynamic Message Signs (DMS) will require MDOT personnel to witness factory acceptance testing (FAT). The SYSTEM MANAGER will only review and verify manufacturer's submitted testing results, unless otherwise requested.

Task 2.0 (Post Design Services and Manufacturer's Acceptance Testing)
Deliverables:

1. **Responses to Contractor/Vendor inquiries;**
2. **Review comments and acceptance recommendation of project submittals;**
3. **Final FAT Report including component and equipment level factor test verification documentation with Manufacturer's Testing Certifications, Completed Testing Checklists, and other verification documentation – Included in the Final System Acceptance Report.**

Task 3.0 Field Integration Oversight

Once the CONTRACTOR has installed and supplied the power and communications interconnect to each ITS device as stated in the plans and specifications and approved by CONSTRUCTION ENGINEER, the CONTRACTOR will integrate each device into the communications network built as part of the project. The SYSTEM MANAGER will provide construction-integration coordination, and a template database that includes necessary information for the CONTRACTOR to develop an Asset Management Database. The SYSTEM MANAGER will review and accept the final Asset Management Database, developed by the CONTRACTOR. The SYSTEM MANAGER will verify the integration quality and timeliness of work by verifying correct ITS devices are in the locations stipulated in the project plans and specifications, as well as the Asset Management database. A field integration checklist will be completed identifying that all integration tasks have been completed and are documented. For each day that integration and installation is witnessed and/or verified, the SYSTEM MANAGER shall complete a daily report. Upon completion of integration and installation inspection, the SYSTEM MANAGER will prepare a punch list regarding ITS items for the project. Upon completion of the punch list by the CONTRACTOR, the SYSTEM MANAGER will coordinate with the CONSTRUCTION ENGINEER to verify the completed work. All

documentation will be provided to the CONSTRUCTION ENGINEER and to the MDOT PROJECT MANAGER upon completion of this task.

Task 3.0 (Field Integration Oversight) Deliverables

1. Review of Asset Management Database – Include in Final System Acceptance Report
2 Inspector's Daily Reports (IDR's) – Include in Final System Acceptance Report
3. Integration/ Installation Oversight Report including Oversight Report of communications system renovation and integration at all communications hubs, Installation/ Integration checklists, verified equipment installation plans (Asset Management Database), Installation/ Integration log – Include in Final System Acceptance Report
4. Verified punch list matrix – Include in Final System Acceptance Report

Task 4.0 System Requirements, System Configuration and Integration, and System Acceptance Documentation

- **Task 4.1 System Requirements Document**

The System Requirements Document (SRD) will be produced by the SYSTEM MANAGER within the guidelines set forth by IEEE Standard 1233. The SRD is a structured document singularly identifying each subsystem and specific requirement of operation, characteristic, or other attribute related to the subsystem or a component thereof. The requirements contained in the SRD are the basis for developing individual test cases that will be used in the review of the Acceptance Test Plan used for final acceptance of the system. The following communications systems and ITS Device subsystems will be included in the SRD, as a minimum:

1. Ethernet Communications System (Wireless and Wire-line);
2. Dynamic Message Sign System;
3. Surveillance System CCTV Camera;
4. Microwave Vehicle Detection System; and
5. Other components or duties as defined

- **Task 4.2 Equipment Configuration Plan**

The SYSTEM MANAGER will review the Equipment Configuration Plan (ECP), a document produced by the Contractor identifying how each managed device will be configured, providing comments to the Contractor. The SYSTEM MANAGER will be tasked with the review of an IP Addressing Scheme developed by the Contractor for the MDOT ITS System.

- **Task 4.3 Acceptance Test Plan**

Using the SRD as a tool, the SYSTEM MANAGER review the Acceptance Test Plan (ATP) developed by the Contractor for conformance to the project plans and specifications. Acceptance tests will be conducted by the CONTRACTOR and witnessed/verified by the SYSTEM MANAGER. Milestones within the ATP include:

1. Device Check-in Test - The SYSTEM MANAGER will receive checklists, data, software and other documentation from the CONTRACTOR.

2. Level Test – SYSTEM MANAGER will witness/verify component level tests for major equipment such as licensed microwave equipment, layer 3 switches, servers, firewalls, and video walls. The SYSTEM MANAGER will receive all documentation related to the component level test from the CONTRACTOR.

3 .Local Device Assembly Test (LDAT) – The LDAT consists of testing of specific functional or performance requirements of a local device assembly as defined in the plans and specifications for the project. Tests are performed after ITS Device Assembly installation by the Contractor, and completion of the field integration by the Integrator. The SYSTEM MANAGER will witness/verify LDAT tests conducted by the CONTRACTOR. All documentation will be provided to the MDOT Project Manager upon completion.

4. Final System Test – Utilizing the system software supplied by field device manufacturers and others (Central System Software), tests will be executed to specific ITS devices to verify function and performance meets the requirements defined in the Systems Requirements. The final system test may not commence until all LDAT's have been conducted, passed and verified by the SYSTEM MANAGER. The SYSTEM MANAGER will notify the CONTRACTOR when Final System Testing may commence. The Final System Test will be conducted by the CONTRACTOR and verified by the SYSTEM MANAGER. All documentation will be provided to the MDOT PROJECT MANAGER upon completion.

5. Burn-in Period – The SYSTEM MANAGER will coordinate and oversee the full life-cycle of the Burn-in Period. The Burn-in Period will begin upon written authorization by the SYSTEM MANAGER and will continue for 30 days thereafter, unless an equipment failure occurs. In the event that an equipment failure occurs, the Burn-in Period will be stopped and the CONTRACTOR will complete all necessary work to correct the problem. Malfunctioning electrical or electronic equipment will be replaced in kind or as approved by the SYSTEM MANAGER. The SYSTEM MANAGER will require the CONTRACTOR to coordinate manufacturer return merchandise authorizations (RMAs) with the MDOT Project Engineer. The SYSTEM MANAGER will review the failure report submitted by the CONTRACTOR. Within two working days after receiving the equipment failure report, the SYSTEM MANAGER will notify the CONTRACTOR in writing whether the Burn-in Period will be continued, extended (i.e., Burn-in Period time extended until a set time is reached), or restarted (i.e., set Burn-in Period time back to Day Zero). All documentation will be provided to the MDOT PROJECT MANAGER upon completion.

The conditional acceptance period will be as defined in the project plans and specifications. Upon completion of the conditional acceptance period, the system will be accepted by the SYSTEM MANAGER and MDOT.

Task 4.0 (System Requirements, System Configuration and Integration, and System Acceptance Documentation) Deliverables:

1. System Requirements Document – Included in Final System Acceptance Report;
2. IP Addressing Scheme;
3. ECP Review Comments with executive summary - Included in Final System Acceptance Report;

4. ATP Review Comments;
5. Complete IDR checklist for each day testing activities occur;
6. ATP Verification Report with acceptance testing log – Included in Final System Acceptance Report;
7. System Burn-in Report including verification dates and inspectors (with cross reference to IDRs) – Included in Final System Acceptance Report;
8. Final System Acceptance Report with the following sections:
    - Title Sheet
    - Table of Contents
    - Narrative/ Executive Summary
    - Task 2.0 Deliverables
    - Task 3.0 Deliverables
    - Task 4.0 Deliverables
    - Appendices

A. **Safety:** The Consultant must perform field operations in accordance with the Department's Personal Protective Equipment (PPE) Policy as stated in the MDOT Guidance Document #10118. A current copy of MDOT's PPE Policy is available on the MDOT website under the "Doing Business" link then under the "Vendor/Consultant Services" link. The PPE document link is under the Vendor/Consultant Contracts heading. The Consultant must perform field operations in accordance with MIOSHA regulations and accepted safety practices.

B. **Project Engineer:** Perform as the Project Engineer for the Project consistent with the Department's practice and in accordance with the Specifications, Plans, Proposal, the MDOT Construction Manual, the Materials Source Guide, and any and all other applicable references, guidelines, and/or procedures manuals. Assign the Project Engineer as liaison between the Consultant and Department-designated Project Manager.

C. **Inspectors:** Perform as the Inspector for the Project consistent with the Department's practice and in accordance with the Specifications, Plans, Proposal, the MDOT Construction Manual, the Materials Source Guide, and any and all other applicable references, guidelines, and/or procedures manuals. The consultant must assign a sufficient number of qualified and experienced inspectors to this Project to perform the services in a quality manner to avoid any delay to the Construction Contractor. Personnel performing inspection and testing on hot mix asphalt, concrete, aggregate or for density must have the appropriate certification and level for the inspection and testing that is being performed. Inspectors Daily Reports (IDRs) are to be documented and provided to the PM, their designee, applicable field office, or the Project Engineer electronically on a daily basis unless approved otherwise by the PM.

D. **Office Support and Equipment:** Provide an experienced and qualified office technician knowledgeable about all aspects of the Field Manager system, and procedures regarding project record documentation. Provide administrative

support. Provide all computer and related equipment necessary to run the Field Manager system. Provide construction administration, field implementation and record keeping per the most current Special Provision for Construction Document Management and department procedures.

E. **Meetings:** Arrange and conduct conferences and meetings required for carrying out the services or as may be required by the Project Manager. Prepare and distribute minutes of all meetings except the preconstruction meeting unless requested otherwise by the Project Manager.

F. **Coordination:** Provide appropriate coordination and contact, public relations, and cooperation with all affected local, state, and/or federal agencies including the Federal Highway Administration; other Consultants and other Contractors; the general public; utilities and railroad companies; and local police, fire, and emergency services which may be affected by the Project and which are deemed to be the responsibility of the Consultant by the Department.

G. **Progress:** Keep daily diaries, sketches, logs, and records consistent with Department practice as may be needed to record the Contractor's progress. Notify the Project Manager of any anticipated Contractor's requests for extensions of time. Notify the Project Manager upon receipt of any Contractor's requests for extensions of time.

H. **Changes/Extras/Adjustments:** Notify the Project Manager immediately of any unanticipated Project conditions and any changes, extras, or adjustments to the contract before processing a Work Order and/or Contract Modification.

I. **Contentious Issues:** Resolve any problems, issues, discrepancies, or other items brought to the attention of the Consultant by the Contractor. Provide documented resolution of such issues. Keep the Project Manager informed of all such issues.

J. **Contractor Claims:** Represent the Department as the Project Engineer on any and all claims and denied extensions of time requests filed on behalf of the Construction Contractor and/or Subcontractor on the Project against the Department. These claims must be represented by the Consultant in accordance with Section 104.10 of the most current Standard Specifications for Construction and/or the Department's documented Claim or Dispute Review Board Procedures in effect at the time the Construction Contractor files the claim.

K. **Staff Reductions:** Withdraw any personnel or halt any services no longer required, at the request of the Department, or within a reasonable time after the lack of need becomes apparent to the Consultant or the Project Manager. The consultant will not be reimbursed for the cost of personnel charged to a project that the Project Manager has determined was unnecessary.

L. **Consultant Deliverables:** Collect, properly label or identify, and electronically (where applicable) provide or deliver to the Department all original diaries, logs,

notebooks, accounts, records, reports, other documents, and Project files prepared by the Consultant in the performance of the Agreement, upon completion or termination of the Agreement. Return, upon completion or termination of the Agreement, all Specifications, Manuals, guides, documented instructions, construction contracts and plans, unused forms, and all other documents and materials furnished by the Department. The Consultant may be responsible for replacing lost documents or materials at a fair and reasonable price.

M. Design Changes: Due to the complexity of this project, the consultant must be responsible for all necessary design changes with approval from the Project Engineer Manager.

N. Soil Erosion and Sedimentation Control (SESC): The Consultant must have a comprehensive knowledge of Part 91, Soil Erosion and Sedimentation Control, of Public Act 451 of 1994, Natural Resources and Environmental Protection Act, MDOT's current Soil Erosion and Sedimentation Control Manual, and MDOT's obligation as an Authorized Public Agency (APA).

As an APA, MDOT accepts responsibility for earth disturbance within its right of way. The Consultant must assign a Construction Storm Water Operator (CSWO), who possesses a current Construction Storm Water Operator Certification (CSWOC), to perform site inspections to determine compliance with the Soil Erosion and Sedimentation Control Plan and report any deficiencies on Form 1126, National Pollutant Discharge Elimination System (NPDES) and Soil Erosion Sedimentation Control (SESC) Inspection Report.

The CSWO must be on-site at all times during normal working hours. A CSWO is defined as an individual who has Taken Michigan Department of Environmental Quality (MDEQ) Construction Storm Water Operator/Soil Erosion Inspector Training (covering Units 1-5) and holds a valid, current CSWO Certification. The CSWO duties consist of performing inspections of the construction site to ensure SESC measures are implemented and maintained per the SESC plan and are effective in minimizing soil erosion and preventing sedimentation from leaving the site. The CSWO must inspect a project for SESC compliance every seven days or within 24 hours of a precipitation event (rain or snowmelt) that results in runoff from the site. The CSWO must be available to meet with MDOT staff or MDEQ personnel. The CSWO must immediately provide a copy of any MDEQ or MDOT inspection report to the Project Manager and the applicable Region Soils Engineer.

Individuals who are responsible for administering and enforcing Part 91 or revising SESC plan measures before or during construction must hold a valid Comprehensive Soil Erosion and Sedimentation Control Training Certificate. Only an individual holding this certificate may develop, modify, or change prescribed SESC measures that are not effective. Both the Project Manager and the applicable Region Soils Engineer must be provided copies of the revised SESC plan for approval.

The Consultant must immediately report to the Project Manager the Contractor's failure to complete SESC corrective actions within the required time frames. Deficiencies are to be documented on Form 1126. Form 1126 is to be distributed to the applicable Region Soils Engineer and the Construction Field Services Division.

O. Storm Water Management: The Consultant must have a thorough working knowledge of the Department's Storm Water Management Plan. Perform inspection of the construction site to ensure that the Contractor's operation is following pollution prevention and good housekeeping best management practices conforming to the Department's Storm Water Management Plan. Notify the Project Manager or designee immediately of the occurrence of, or potential for, release of polluting material to the ground, groundwater, surface water, or storm water drainage system including open ditches, culverts, and enclosed storm sewers.

P. Environmental Permits: Have a thorough working knowledge of the construction requirements of all project specific environmental permits issued to MDOT by the MDEQ Land and Water Management Division, U.S. Army Corp of Engineers, or other permitting agency. Inspect project areas covered by these permits and assure that the Contractor complies with the permit requirements. Report to the Project Manager or designee any potential for or occurrence of violation of these permits. Fully document all site conditions and actions taken regarding potential or actual violations of the permit requirements.

Q. Other Environmental Issues: Have a thorough working knowledge of the Department's specifications regarding bridge painting, diamond grinding, hydrodemolition, and hazardous materials. Ensure that the Contractor complies with these specifications, and maintain proper documentation.

R. Inspection Reports: Complete inspection reports, including but not limited to, Inspector's Daily Report (IDR) and NPDES/SESC Inspection Report (Form 1126), as necessary to fully document all site conditions and any corrective action required and completed related to environmental issues. Provide digital photos as necessary to document conditions and all corrective actions.

PROJECT INSPECTION

A. Ongoing Inspection: Provide inspection of all Contractor field construction work, perform quality assurance sampling and/or testing, and confirm substantial conformance with the Specifications, Plans, and Proposal. Arrange for non-compliance work to be made whole by the Contractor or to find the non-compliance work acceptable to the Consultant and, where necessary, to the MDOT Project Manager. Inform the Project Manager of non-compliance work and trends toward borderline compliance.

B. Final Inspection: Complete a final inspection of all work included in the Project, or such portions thereof eligible for acceptance, after notification by the Contractor that

the work is completed or after the Consultant's records show the work is completed. The final inspection must include documented communication notifying the Contractor of particular defects to be remedied if work is not acceptable to the Consultant.

C. Final Acceptance: Ascertain that every part of the Project has been completed in accordance with the plans and specifications, or such modifications thereof as may have been approved. Invite the Project Manager and other Department personnel, as directed by current Department policy, to participate in the final acceptance review.

D. Overdue Final: The Department has 120 days from the actual project completion date to final the project and issue the final pay estimate. After this time period the project will be placed into overdue final status. The Consultant should close the project within this time period and issue the final estimate to avoid the project falling into overdue final status.

TESTING AND REPORTING

A. Material Quality Assurance Sampling and/or Testing and Density Control: Conduct quality assurance sampling and/or testing of materials including but not limited to, hot mix asphalt, concrete, aggregates, and density testing and reporting in accordance with MDOT's Materials Source Guide, Materials Quality Assurance Procedures Manual, Density Testing and Inspection Manual, and any or all other applicable referenced or included Contract Documents. Determine the acceptability of materials based on their respective specification requirements. Immediately inform the Project Manager of non-compliance work and trends toward borderline compliance. Reject Contractor's work and materials not in compliance with the Contract Documents or as directed by the Project Manager. **The Consultant will be held accountable for all quality assurance activities and will be reimbursed for these activities unless otherwise documented by the Project Manager that the Consultant is not responsible for these services.**

B. Material Certification: Ensure that acceptable test reports and/or material certifications from the Contractor have been received, prior to the incorporation of materials in the work and before payment is issued.

C. Material Reports: Submit all material test reports according to their respective distribution list within one day of the testing.

The Consultant and any Subconsultants contracted by the Department to perform density testing services with portable nuclear density gauges regulated by the U.S. Nuclear Regulatory Commission (NRC) must:

1. Possess a valid Materials License issued by the NRC, or recognized Agreement State, that is issued to the consultant performing the work for ownership and use of sealed radioactive sources contained within the portable nuclear density gauges.

2. **Provide the MDOT Radiation Safety Officer (RSO) and the Project Manager with a copy of the aforementioned license.**

3. **Comply with all rules and regulations set forth by Titles 10 CFR (Energy) and 49 CFR (Transportation).**

Failure of any of the above will result in the Consultant being in non-compliance with the contract.

MEASUREMENT, COMPUTATION AND DOCUMENTATION OF QUANTITIES

A. Documentation: Measure and compute quantities, and provide appropriate documentation of all materials incorporated in the work and items of work completed, and maintain an item record account using Field Manager software. Documentation is to be maintained in electronic format per the most current documentation guidance issued by the Department. This is applicable per any Contractor directed special provisions or guidance issued by the Department to construction oversight staff.

The Consultant must obtain and be able to use the most current FieldManager suite of software for this project. Contact Info Tech, Inc. at (352) 381-4400 or fax (888) 971-3916 or (www.fieldmanager.com) to obtain software and information on training. As this software is used on all MDOT projects, the cost of this software cannot be charged as a direct expense for this project. Consultants must maintain the most current version of the software used by the Department to administer construction contracts.

B. Insufficient Tested Materials: Track insufficient material documentation and notify the Contractor on a bi-weekly basis.

REPORTING AND RECORD KEEPING

A. Consultant Reports: Prepare such periodic, intermediate and final reports and records as may be required by the Department and as applicable to the Project, which may include, but are not limited to:

- **a. Inspector's Daily Reports,**
- **b. Work Orders,**
- **c. Construction Item and Tested Material Records,**
- **d. Transfer of Tested Materials,**
- **e. Shipment of Tested Stock (Form 1922)**
- **f. Moisture and Density Determination Reports (Form 582B)**
- **g. Inspector's Report of Concrete Placed (Form 1174R or S)**
- **h. National Pollutant Discharge Elimination System (NPDES) and Soil Erosion and Sedimentation Control (SESC) Inspection Report (Form 1126)**

i. Labor Compliance, such as the Weekly Employment and OJT Report (Form 1199),
j. Final Acceptance/Certification Report (Form 1120)
k. Weekly Statement of Work Days Charged
l. Force Accounts
m. Contract Modifications
n. Extension of Time and Liquidated Damages
o. Contractor Evaluation (Form 1182)
p. Commercial Useful Function (Form 4109)
q. Post Certification of Subcontract Compliance (Form 1386)
r. Complete Post Construction Review including Form 285-2, if required by the Project Manager.
s. Other records and/or reports as required for the individual Project by the Project Manager and/or as required by Specifications, Plans, Proposal, the Michigan Construction Manual, the Materials Sampling Guide, and any and all other applicable references, guidelines, and/or procedures manuals.

B. Reports-Contractor Generated: Review, process, and/or approve Construction Contractor submittal of records and reports required by the Department as applicable to the Project which may include, but not limited to:

a. Working and Shop Drawings,
b. Weekly Employment Reports, Certified Payrolls
c. Contractor's claims for additional compensation and extension(s) of time, and
d. Other reports and records as required for the individual Project by the Project Manager.

C. Project Files: Maintain project files in accordance with the most current documentation guidance as issued by the Department and the most current version of the Special Provision for Construction Document Management.

CLOSING ALL PROJECT DOCUMENTATION

A. Final Measure and Summarize: Final field measure applicable items of work. Prepare final summaries for applicable items of work.

B. Project Review/Certification: Participate in and resolve items determined to be insufficient during the Department's review(s) of project records and/or during the Project Engineer Certification Process prior to submitting the Final Estimate. Within 45 calendar days of the actual project completion date, the project records must be ready for the Final Records Review.

C. Final Documents: Prepare and submit the Final Estimate, Final Quantity Sheets, Final Marked As-Constructed Plans, and the Design/Construction Package Evaluation (Form 285-2). The Final Estimate Package must be submitted to the Project Manager within 30 days of the Final Records Review.

MDOT RESPONSIBILITIES:

A. The Project Manager will furnish to the Consultant all Project-specific construction contracts, proposals, plans, plan revisions, documented instructions, and other information and/or data as deemed necessary by the Project Manager for the Services required herein unless such information is available to be downloaded on the MDOT web site.

B. The Department will furnish off-site inspections and tests of steel, cement, bituminous mixture designs, sewer and drainage pipe, structural steel, prestressed girders and beams, traffic signs, geotextiles and any other materials customarily tested in the Department laboratories with its own forces or by statewide contracts except concrete aggregates, aggregates, and concrete cylinders. The customary testing is described in the Materials Quality Assurance Manual with exceptions noted within the Specifications, Plans, and Proposal. The Consultant is be responsible for the sampling and transportation of all the materials to be tested by Department personnel.

C. The Project Manager will provide general monitoring and quality auditing inspection of the Project to assure that the Project has been completed in reasonable conformance with the plans and specifications for Project Acceptance and to determine that the work performed to date by the Consultant for Services rendered is reasonable and appropriate before approving the Consultant's requests for progress payments.

D. The Department will perform soil borings and subsurface investigation as necessary throughout the contract.

E. The Project Manager or their designee will arrange and conduct the preconstruction meeting as well as prepare and distribute the meeting minutes unless otherwise directed.

CONSULTANT PAYMENT – Actual Cost Plus Fixed Fee:

Compensation for this project shall be on an **actual cost plus fixed fee** basis. This basis of payment typically includes an estimate of labor hours by classification or employee, hourly labor rates, applied overhead, other direct costs, subconsultant costs, and applied fixed fee. The fixed fee for profit allowed for this project is 11.0% of the cost of direct labor and overhead.

All billings for services must be directed to the Department and follow the current guidelines. Payment may be delayed or decreased if the instructions are not followed.

Payment to the Consultant for services rendered shall not exceed the maximum amount unless an increase is approved in accordance with the contract with the Consultant. Typically, billings must be submitted within 60 days after the completion of services for the current billing. The final billing must be received within 60 days of the completion of services. Refer to your contract for your specific contract terms.

Direct expenses, if applicable, will not be paid in excess of that allowed by the Department for its own employees in accordance with the State of Michigan's Standardized Travel Regulations. Supporting documentation must be submitted with the billing for all eligible expenses on the project in accordance with the Reimbursement Guidelines. The only hours that will be considered allowable charges for this contract are those that are directly attributable to the activities of this project.

MDOT will reimburse the consultant for vehicle expenses and the costs of travel to and from project sites in accordance with MDOT's Travel and Vehicle Expense Reimbursement Guidelines, dated May 1, 2013. The guidelines can be found at http://www.michigan.gov/documents/mdot/Final_Travel_Guidelines_05-01-13_420289_7.pdf?20130509082418. MDOT's travel and vehicle expense reimbursement policies are intended primarily for construction engineering work. Reimbursement for travel to and from project sites and for vehicle expenses for all other types of work will be approved on a case by case basis.

MDOT will pay overtime in accordance with MDOT's Overtime Reimbursement Guidelines, dated May 1, 2013. The guidelines can be found at http://www.michigan.gov/documents/mdot/Final_Overtime_Guidelines_05-01-13_420286_7.pdf?20130509081848. MDOT's overtime reimbursement policies are intended primarily for construction engineering work. Overtime reimbursement for all other types of work will be approved on a case by case basis.